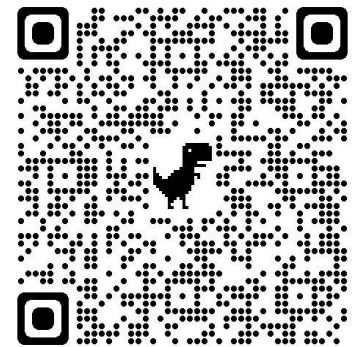
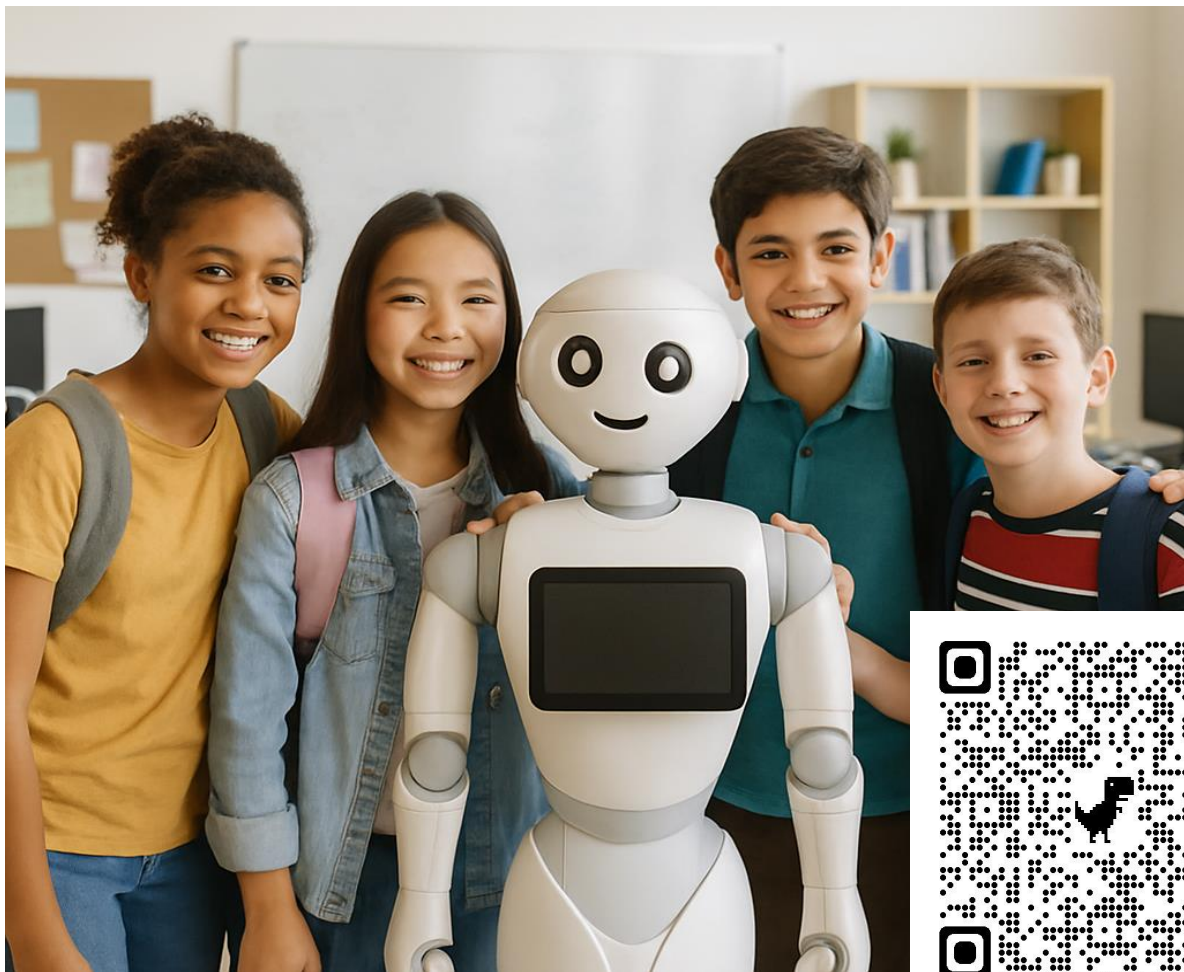


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Computer World

Prep 2 _ First Term 2026



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Subjects for Prep_2

Academic Year 2025 / 2026

Unit 1: Artificial Intelligence and Protecting Our Digital Data

Lesson 1 : Smart Systems and Their Impact on Climate Change

Lesson 2 : Advanced Cyber Threats

Lesson 3 : Big Data

Lesson 4 : Big Data and Its Relation to Artificial Intelligence

Unit 2: Designing and Creating Websites

Lesson 1 : Principles of Designing Attractive and Professional Website Interfaces

Lesson 2 : Formatting Web Pages

Lesson 3 : My Digital Project for My School

Lesson 4 : Creating Your Website with the Help of Artificial Intelligence

Lesson 1: Smart Systems and Their Impact on Climate Change

1. Concept of Interconnected Smart Systems (IoT – AI – Robotics)

- Today, devices can communicate, think, and act automatically.
- This happens through technologies combining:
 - Internet of Things (IoT)
 - Artificial Intelligence (AI)
 - Robotics
- **Example:**
 - Smart home systems adjust lighting and temperature automatically.
 - AI learns your habits (e.g., when you return home) and acts accordingly.
 - Robots can clean or prepare tasks before your arrival.

2. Real-Life Example: Car Engine Breakdown

- **IoT:** Sensors send location and fault information via the Internet.
- **AI:** Analyzes the issue and suggests solutions.
- **Robotics:** A repair robot is sent to fix the problem on-site.

Smart Component

Function

IoT	Sending data and location
AI	Analyzing and decision-making
Robotics	Executing the fix or providing help

3. Daily Applications of Smart Systems

- **Smart Home:**
 - IoT connects devices.
 - AI controls temperature and lighting.
 - Robots assist with cleaning or moving objects.



- **School Robot:**

- IoT connects to online resources.
- AI understands questions and answers.
- Robot responds by talking or writing.

- **Smart Farming:**

- Sensors collect soil data.
- AI analyzes and decides irrigation needs.
- Robots water crops automatically.

- **Voice Assistant:**

- IoT connects to the Internet.
- AI understands and answers questions.
- No robots involved.

- **Smart Car:**

- IoT links to GPS and maps.
- AI detects road risks.
- Robots control car movement.

4. Smart Systems and Climate Change

Climate problems today:

- Global warming
- Air pollution
- Melting ice
- Drought
- Flooding

Smart systems help reduce pollution and protect the planet.

a. *Global Warming*

- Cause: Emissions from factories and cars.
- Smart solution:
 - IoT measures temperature and pollution.

AI suggests solutions to reduce emissions.

Robotics plant trees or clean the air.



b. Air Pollution

- Cause: Car exhaust, factory emissions, burning waste.
- Smart solution:
 - IoT detects pollution levels.
 - AI identifies hot spots.
 - Robotics clean the air or plant greenery.

c. Water Shortage & Drought

- Cause: Overuse of water, low rainfall.
- Smart solution:
 - IoT measures soil moisture.
 - AI calculates water needs.
 - Robotics irrigate only when needed.

d. Flooding & Heavy Rain

- Cause: Sudden climate changes.
- Smart solution:
 - IoT measures rainfall and water flow.
 - AI sends early flood warnings.
 - Robotics help drain water and rescue.

e. Melting Ice

- Cause: Rising global temperatures.
- Smart solution:
 - IoT monitors ice melting rates.
 - AI predicts future melting.
 - Robotics collect data to support climate action.

5. Conclusion

- Smart systems are not just inventions — they're tools to **protect our planet**.
-  By using IoT, AI, and Robotics together, we can **monitor the environment, reduce pollution, and build a sustainable future**.

✿ Lesson 1 Qestions

A. True or False (8 Questions)

1. Smart systems can help reduce energy waste. ()
2. Internet of Things means connecting devices together. ()
3. Smart agriculture has no effect on water usage. ()
4. Smart homes can adjust temperature automatically. ()
5. Artificial Intelligence cannot help in saving energy. ()
6. Smart transportation can reduce pollution. ()
7. Traditional systems are more efficient than smart systems. ()
8. Smart cities use technology to improve life quality. ()

B. Complete the Sentence (7 Questions)

1. Smart systems are used to _____ energy use.
a) increase b) ignore c) reduce d) destroy
2. IoT stands for _____.
a) Internet of Tools b) Internet of Things c) International of Time
d) Intelligent of Town
3. Smart agriculture helps save _____.
a) oil b) money c) water d) time
4. Smart transportation helps reduce _____.
a) pollution b) plants c) food d) devices
5. Smart homes use _____ to control lights and temperature.
a) AI b) books c) pens d) cars
6. Smart cities improve people's _____.
a) height b) health c) quality of life d) clothes
7. Artificial Intelligence is also called _____.
a) Automatic Information b) Artificial Imagination c) Artificial
Intelligence d) Artificial Internet

 Model 2**A. True or False (8 Questions)**

1. Smart systems work without any technology. ()
2. Smart cities use technology to manage resources. ()
3. Smart transportation helps reduce traffic problems. ()
4. Smart agriculture increases water waste. ()
5. IoT connects devices like cars and sensors. ()
6. Smart homes can save electricity. ()
7. Smart systems have no impact on climate change. ()
8. Artificial Intelligence supports smart systems. ()

B. Complete the Sentence (7 Questions)

1. Smart systems help to _____ energy and resources.
a) waste b) save c) burn d) hide
2. Smart homes use sensors to _____ lights automatically.
a) open b) close c) control d) delete
3. IoT connects _____ devices together.
a) random b) smart c) old d) broken
4. Smart agriculture helps farmers use _____ wisely.
a) toys b) animals c) water d) cars
5. Smart transportation reduces _____ pollution.
a) noise b) light c) air d) land
6. AI stands for _____ Intelligence.
a) Automatic b) Artificial c) Active d) Advanced
7. Smart cities make life _____ and better.
a) harder b) slower c) easier d) worse

Lesson 2: Advanced Cybersecurity Threats

1. Introduction to Advanced Cybersecurity Threats

- In previous years, we learned how to protect personal data using strong passwords and antivirus software.
- Now we explore more **advanced hacking techniques** used by cybercriminals.
- These threats are well-planned and target **system weaknesses** or **user behavior**.

☐ Advanced cyber threats = Professional thieves trying to steal your data digitally.

2. Ransomware Attacks

- Imagine someone locks your house and demands money to open it — this is what ransomware does to your computer.
- **Definition:**
 - Malicious software that encrypts files or locks your device.
 - Demands payment (ransom) to restore access.
- **How it spreads:**
 - Suspicious emails or links
 - Harmful websites
 - Untrusted software downloads
- Once inside, it locks files and shows a ransom message.

3. Advanced Social Engineering

- Social engineering is not about hacking devices — it's about **hacking people's minds**.
- It tricks users into giving away sensitive information.

Main Types:

- ✉ **Spear Phishing:**
 - Targeted fake emails or messages.
 - Hackers use personal details (name, company info) to gain trust.
- ☐ **Pretexting:**
 - Hacker pretends to be a trusted person (e.g., bank employee or IT support).
 - Uses a fake story to steal information.



- **Baiting:**

- Hacker offers something attractive (e.g., free USB or software).
- Victim downloads or plugs it in, and the system is infected.

4. Distributed Denial of Service (DDoS) Attacks

- Imagine a famous website with millions of visitors at the same time.
- Too much traffic causes the website to **crash**.
- Hackers use **botnets** (infected computers) to flood the site with requests.



- **Effect:**

- Website becomes very slow or stops working.
- Real users can't access the service.
- Similar to a traffic jam blocking a road.

5. Activity Examples for Students

- Think of real phishing messages or scam calls.
 - How can you tell if they are fake?
- Draw a simple diagram of how a DDoS attack happens.
- Discuss with classmates how DDoS affects businesses and users.

6. Key Protection Tips

- Always **check the sender** before clicking links.
- Avoid downloading from **untrusted sources**.
- Use **strong passwords** and keep antivirus software updated.
- Think carefully before sharing any personal information online.
- Remember: **You are the first line of defense** in the digital world.

✓ **Summary:**

- Advanced cyber threats include **ransomware**, **social engineering**, and **DDoS attacks**.
- These threats use **technology and human behavior** to harm systems.
- Awareness and safe online behavior can **protect your data**.

Lesson 2 Questions **Model 1****A. True or False (8 Questions)**

1. Ransomware locks your files and asks for money. ()
2. Phishing messages are always real. ()
3. Advanced threats can harm personal data. ()
4. Hackers use fake emails to steal information. ()
5. DDoS attacks make websites faster. ()
6. Social engineering tricks people, not machines. ()
7. Using strong passwords helps protect your data. ()
8. Hackers can attack systems in many ways. ()

B. Complete the Sentence (7 Questions)

1. Ransomware _____ files and demands payment.
a) deletes b) locks c) copies d) opens
2. Phishing is a way to steal _____.
a) clothes b) food c) information d) phones
3. DDoS attacks make websites _____.
a) work faster b) stop working c) grow d) play music
4. Social engineering tricks _____.
a) people b) computers c) animals d) cars
5. A strong _____ helps protect accounts.
a) password b) bag c) book d) ticket
6. Hackers use _____ emails to steal data.
a) fake b) official c) safe d) clean
7. To stay safe, always update _____.
a) clothes b) antivirus c) shoes d) bags

 Model 2**A. True or False (8 Questions)**

1. Ransomware is a type of advanced cyber threat. ()
2. DDoS attacks can make a website crash. ()
3. Hackers always use real information. ()
4. Social engineering is about tricking people. ()
5. Phishing messages are always safe to open. ()
6. Strong passwords can reduce risks. ()
7. Advanced threats can come from fake links. ()
8. Antivirus software can help protect devices. ()

B. Complete the Sentence (7 Questions)

1. A DDoS attack sends too many _____ to a website.
a) requests b) books c) cars d) windows
2. Phishing emails try to make you give your _____.
a) water b) money c) information d) tools
3. Ransomware demands _____ from the user.
a) food b) money c) tickets d) clothes
4. Social engineering is a type of _____ attack.
a) physical b) people-based c) water-based d) machine-only
5. Antivirus software helps _____ your data.
a) paint b) protect c) break d) remove
6. Hackers may use _____ links to attack you.
a) safe b) fake c) strong d) public
7. Creating a strong _____ is important for security.
a) wall b) password c) screen d) printer

Lesson 3: Big Data

1. Definition of Big Data

- Big data is a **large and complex collection of data** that cannot be processed efficiently using traditional tools (like Excel).
- By analyzing big data, organizations can make **better and faster decisions**.

2. Main Sources of Big Data

-  **Internet of Things (IoT):**
 - Smart devices such as smart fridges, watches, and connected cars generate data continuously.
 - Example: A smartwatch records heart rate, activity, and temperature and sends the data to an app.
-  **Social Media Platforms:**
 - User activities like posts, comments, photos, and likes generate large amounts of data.
 - Example: A photo posted on Instagram includes data about location, time, and reactions.
-  **Financial Transactions:**
 - Online payments, banking operations, and stock exchanges generate financial data.
 - Example: When someone buys something online with a credit card, data is collected about the amount, store, and location.
-  **Smart Devices:**
 - Mobile phones, cameras, and smart home devices collect usage and location data.

Example: Your phone tracks your location and app usage.

- **Digital Content:**

- Videos, photos, and audio uploaded or streamed online create huge amounts of data.
- Example: Watching a video on YouTube generates data about views and engagement.

- **Government Data:**

- Population records, taxes, and census data are important sources.
- Example: Census data about population and income levels.

- **Geographic and Spatial Data:**

- GPS and satellites collect data about locations, roads, and environments.
- Example: Navigation apps collect traffic data to improve directions.

3. The Five V's of Big Data

Characteristic	Meaning
Volume	The large amount of data collected from multiple sources.
Velocity	The high speed at which data is produced and processed.
Variety	The different types of data (structured, unstructured, semi-structured).
Veracity	The accuracy and reliability of the data.
Value	The usefulness and benefit gained from analyzing the data.

4. Types of Big Data

- **Structured Data:**

- Organized in rows and columns like traditional databases.
- Example: Customer records, financial data, transactions.

- **Unstructured Data:**

- Not organized in tables, harder to analyze using traditional tools.
- Example: Text, images, videos, social media posts.

- **Semi-Structured Data:**

- A mix of structured and unstructured data.
- Example: Emails (structured fields like sender and date + unstructured message body).

✓ Summary:

- Big data is **massive and complex information** generated from many sources.
- It has **5 key characteristics**: Volume, Velocity, Variety, Veracity, and Value.
- Understanding big data helps businesses and governments **make smarter decisions**.
- Types of big data include structured, unstructured, and semi-structured.

Lesson 3 Questions **Model 1****A. True or False (8 Questions)**

1. Big Data means a small amount of data. ()
2. Big Data comes from many different sources. ()
3. Social media is one of the sources of Big Data. ()
4. IoT devices can generate data. ()
5. Big Data is not useful for making decisions. ()
6. GPS and satellites are examples of data sources. ()
7. Big Data can be structured or unstructured. ()
8. Governments can use Big Data for planning. ()

B. Complete the Sentence (7 Questions)

1. Big Data is a _____ and complex collection of information.
a) small b) simple c) large d) easy
2. Social media platforms generate a lot of _____.
a) toys b) data c) water d) wood
3. Smart devices like watches are part of _____.
a) IoT b) GPS c) TV d) radio
4. Financial transactions are one _____ of Big Data.
a) house b) source c) car d) book
5. GPS and satellites provide _____ data.
a) geographic b) personal c) cooking d) random
6. Big Data can be _____, unstructured, or semi-structured.
a) orange b) physical c) structured d) written
7. Governments use Big Data to make better _____.
a) tables b) decisions c) chairs d) toys

✱ □ Model 2**A. True or False (8 Questions)**

1. Big Data is only collected from one source. ()
2. IoT devices like smartwatches generate data. ()
3. Social media is a major source of Big Data. ()
4. Big Data can help companies make better decisions. ()
5. Government data can be part of Big Data. ()
6. Big Data is always structured. ()
7. Geographic data can come from satellites. ()
8. Digital content like videos can be part of Big Data. ()

B. Complete the Sentence (7 Questions)

1. Big Data is collected from many _____.
a) houses b) schools c) sources d) animals
2. IoT stands for Internet of _____.
a) Things b) Tools c) Tables d) Toys
3. Social media data includes posts, photos, and _____.
a) water b) comments c) bags d) trees
4. Financial transactions are examples of _____ data.
a) cooking b) money-related c) farming d) games
5. Satellite data is an example of _____ data.
a) physical b) personal c) geographic d) manual
6. Big Data can help organizations make _____ decisions.
a) better b) bad c) slow d) wrong
7. Unstructured data can include images, text, and _____.
a) pens b) videos c) chairs d) cars

Lesson 4: Big Data and Its Relationship with Artificial Intelligence

1. The Connection between Big Data and AI

- Big data plays a **crucial role** in the development and effectiveness of Artificial Intelligence (AI).
- AI **needs big data** to learn and make accurate decisions.
- On the other hand, AI **helps analyze** and extract value from massive data sets.

2. Stages of Big Data Processing

1. Data Collection □

- Gathering large amounts of data from different sources such as IoT devices, social media, and financial records.

2. Data Storage □

- Storing collected data in large databases or cloud systems for easy access and analysis.

3. Data Cleaning □

- Removing errors, duplicates, or inaccurate information to ensure data quality.

4. Data Analysis ▤

- Using advanced tools and AI techniques to process and understand the data.

5. Information Extraction □

- Converting analyzed data into valuable insights to support decision-making.

3. Uses of Big Data

• □ Artificial Intelligence:

- AI uses big data to simulate human intelligence in tasks such as pattern recognition, speech, and logical reasoning.

• □ Machine Learning and Deep Learning:

- Big data is used to train models that improve over time.
- Example: Weather forecasting, predicting trends, recognizing images.

• ♡ □ Cybersecurity and Network Monitoring:



Big data helps detect threats and protect systems from cyberattacks.

- **E-Commerce:**

- Online platforms use big data to analyze customer behavior, recommend products, and adjust prices.

4. The Role of Big Data in Advancing AI

- **a. Improving Accuracy and Performance:**

- The larger the data, the more AI can learn and make accurate decisions.

- **b. Enabling Advanced AI Applications:**

- **Natural Language Processing (NLP):** AI models like GPT need huge amounts of text data to understand and generate human language.
- **Computer Vision:** AI uses large datasets of images and videos to detect faces and objects.
- **Predictive Analytics:** AI analyzes historical data to predict future trends (e.g., customer behavior, market trends).

- **c. Discovering Hidden Patterns:**

- AI can identify insights and patterns that traditional tools might miss, supporting strategic decision-making.

- **d. Continuous Learning and Adaptation:**

- Real-time data streams allow AI systems to learn and improve constantly.

- **e. Enhancing User Experience and Automating Tasks:**

- AI uses big data to personalize recommendations and automate tasks in customer service, logistics, and finance.

✓ Summary:

- Big data is the **fuel that powers AI**.
- Without big data, AI would be just a set of algorithms with no learning ability.
- AI uses big data to **analyze, predict, learn, and act intelligently**.
- This combination is shaping a smarter, more efficient future in many fields.

Lesson 4 Questions □ Model 1**A. True or False (8 Questions)**

1. Big Data helps Artificial Intelligence learn better. ()
2. AI cannot analyze Big Data. ()
3. AI can use data to make predictions. ()
4. Data cleaning is an important step in data processing. ()
5. Big Data and AI are not connected. ()
6. Machine learning uses Big Data for training models. ()
7. AI can discover hidden patterns in data. ()
8. Big Data supports better decision-making. ()

B. Complete the Sentence (7 Questions)

1. Big Data is the _____ of Artificial Intelligence.
a) enemy b) fuel c) problem d) waste
2. Data processing starts with data _____.
a) burning b) eating c) collection d) cleaning
3. AI can analyze Big Data to make _____.
a) stories b) predictions c) drawings d) sounds
4. Data _____ removes errors and duplicates.
a) cleaning b) playing c) breaking d) eating
5. Machine learning uses Big Data to _____ models.
a) hide b) draw c) train d) break
6. AI can find _____ patterns in data.
a) hidden b) shoes c) pens d) broken
7. Big Data and AI help in better _____ making.
a) chair b) decision c) food d) animal



A. True or False (8 Questions)

1. Big Data plays a key role in AI development. ()
2. AI can turn data into useful information. ()
3. Machine learning does not need data. ()
4. Data cleaning helps improve data quality. ()
5. Predictive analytics uses AI to forecast future trends. ()
6. AI and Big Data together improve decision-making. ()
7. Big Data analysis has no benefits. ()
8. AI can learn from real-time data. ()

B. Complete the Sentence (7 Questions)

1. AI needs Big Data to _____ accurately.
a) guess b) learn c) sleep d) walk
2. Big Data is processed through several _____.
a) doors b) steps c) games d) songs
3. AI uses data to make smart _____.
a) doors b) decisions c) trees d) pens
4. Predictive analytics helps to _____ future trends.
a) dance b) cook c) predict d) cry
5. Machine learning improves as it gets more _____.
a) paper b) data c) wood d) water
6. Cleaning data removes _____ and errors.
a) cars b) mistakes c) clothes d) shoes
7. Big Data and AI make systems more _____.
a) intelligent b) slow c) weak d) noisy

Unit 2 – Lesson 1: Principles of Designing Attractive and Professional Website Interfaces

1. Introduction

- In this lesson, we learn how to design website and application interfaces.
- A **good interface** makes users feel comfortable and helps them find what they need easily.
- A **poor interface** makes users confused or frustrated and may push them to leave the site.

2. User Experience (UX) Design

Definition:

- UX design is about **how the user feels** when using a website or app.
- It focuses on making the experience **easy, clear, and enjoyable**.

Example:

- If you search for a book in a **well-organized library**, it's easy to find.
- If the books are **scattered randomly**, you'll feel lost and frustrated.
- This is the difference between good and bad UX.

Importance of UX:

- If the website is easy to use → users return.
- If it's difficult to use → users leave and never come back.

3. Basic Principles of Good UX Design

- **Easy Navigation:**
 - Users should be able to find what they need quickly.
 - Example: A clear main menu with simple categories like “Home – Books – Contact.”

- ✦ **Clarity:**

- The interface should present information in a simple and understandable way.
- Example: Large, clean fonts are easier to read than small, fancy fonts.

- **Consistency:**

- All parts of the site should have a similar style (same colors, fonts, and button shapes).
- This helps users feel familiar with the interface.

4. User Interface (UI) Design

Definition:

- UI design focuses on **what the website looks like** — the colors, buttons, fonts, and layout.
- It is the **visual side** of the site that users see and interact with.

Example:

- If the buttons are too small or the colors are confusing, the user experience will be poor.
- A clear and beautiful interface makes the site more attractive.

Importance of UI:

- A beautiful design creates a **good first impression**.
- The look of the interface can **encourage users to stay** on the site.

5. Main Principles of UI Design

- 🎨 **Colors:**

- Choose colors that match and make the site comfortable to look at.
- Example: Blue and gray look calm and professional.

Bright, harsh colors can be distracting.



- **Fonts:**

- Fonts must be easy to read and appropriate for the site.
- Example: Simple fonts are better than complex, decorative ones.

- **Layout:**

- Organize elements clearly on the page.
- Example: A page divided into sections (Home – News – Articles) is easier to navigate than a crowded page.

6. UX vs. UI

UX (User Experience)

UI (User Interface)

How the user **feels** while using the site How the site **looks** visually

Focus on ease, clarity, and satisfaction Focus on colors, fonts, and layout

Example: easy-to-find information

Example: attractive, clear design

Example:

- In a restaurant, **UX** is the quality of the food and service.
- **UI** is the decoration and the look of the restaurant.

7. Examples of Good Websites

-  Google → Simple and easy to use.
-  YouTube → Attractive and easy to navigate.
- Over time, interfaces have become **simpler and more user-friendly**.

✓ **Summary:**

- UX focuses on **user comfort and ease of use**.
- UI focuses on **design and appearance**.
- A good website combines both UX and UI to give users an enjoyable and clear experience.

• Good design encourages users to stay, explore, and return again.

Lesson 1 Questions **Model 1****A. True or False (8 Questions)**

1. A good website interface makes users feel comfortable. ()
2. UX means “User Interface.” ()
3. A poor interface can make users leave the site. ()
4. UI focuses on the visual design of the website. ()
5. UX design is about how the website looks only. ()
6. Consistency in colors and fonts is important in design. ()
7. UI design affects the first impression of users. ()
8. Easy navigation is a key principle of good UX. ()

B. Complete the Sentence (7 Questions)

1. UX stands for _____ Experience.
a) User b) Unit c) Useful d) Unique
2. A good interface helps users feel _____.
a) lost b) confused c) comfortable d) angry
3. UI focuses on how the website _____.
a) cooks b) smells c) looks d) eats
4. Consistency means using the same _____ and fonts.
a) colors b) shoes c) tables d) names
5. Easy _____ helps users find information quickly.
a) dancing b) navigation c) sleeping d) calling
6. UX is about how the user _____.
a) walks b) feels c) sings d) sleeps
7. UI design creates a good first _____.
a) message b) impression c) error d) mistake

A. True or False (8 Questions)

1. UX focuses on the user's experience. ()
2. UI has nothing to do with colors. ()
3. A confusing interface can make users leave. ()
4. Consistency makes a website easier to use. ()
5. Fonts are not important in web design. ()
6. UI and UX are two different but related concepts. ()
7. UI focuses on the look of the website. ()
8. UX helps improve user satisfaction. ()

B. Complete the Sentence (7 Questions)

1. UI stands for _____ Interface.
a) User b) Useful c) Unit d) Unique
2. UX focuses on how the user _____ the website.
a) fights b) experiences c) forgets d) runs
3. Colors and _____ affect the design.
a) fonts b) cars c) bags d) pens
4. A good website must be easy to _____.
a) wash b) navigate c) break d) hide
5. A confusing interface can make users _____.
a) stay b) return c) leave d) jump
6. UI and UX work _____ to make a good website.
a) separately b) together c) slowly d) badly
7. Fonts must be easy to _____.
a) read b) cook c) drive d) play

Unit 2 – Lesson 2: Formatting Web Pages

1. Introduction to HTML and Page Formatting

- In previous years, we learned **HTML**, which is used to build static web pages displayed through browsers.
- Originally, formatting (fonts, colors, etc.) was done **inside the HTML code** itself.
- This made creating large websites **difficult and time-consuming** because each page had to be formatted separately.

✖ □ **Problem:** Repeating the same formatting on every page wastes time and increases effort.

2. Solution: Using CSS for Formatting

- To solve this problem, the **CSS** (Cascading Style Sheets) language was introduced.
- With CSS, formatting is done **in one place** and can be applied to multiple pages at once.
- CSS controls the **appearance of web pages** — such as font colors, background colors, sizes, and layouts.

3. Benefits of CSS

- □ **Saves Time:**
 - You can write one CSS file and link it to multiple HTML pages.
- ⚡ **Faster Loading:**
 - The browser downloads the CSS file once and reuses it for all linked pages.
- 🛠 **Easy Editing:**
 - Any change in the CSS file automatically updates all linked pages.

-  **Improved Visual Appearance:**
 - CSS makes pages more attractive and well-organized.
-  **Responsive Design:**
 - CSS allows your website to adjust to different screen sizes (computer, mobile, tablet).

4. CSS Syntax Structure

```
Selector {  
  property: value;  
}
```

- **Selector:** The HTML element to be styled (e.g., body).
- **Property:** What you want to change (e.g., color, size).
- **Value:** How you want to change it (e.g., blue, 20px).

5. Ways to Add CSS to HTML

1. **Inline CSS:**

- Styles are written directly inside HTML elements.

2. **Internal CSS:**

- Styles are written inside the <style> tag in the HTML <head> section.

3. **External CSS (Preferred):**

- Styles are written in a separate .css file and linked to the HTML page.
- Best for large websites because it ensures a **unified design**.

6. Linking an External CSS File to HTML

```
<link href="style.css" rel="stylesheet">
```

- **href:** Specifies the CSS file name and path.
- **rel:** Tells the browser this is a stylesheet.

✓ When you update *style.css*, the design of all linked pages changes automatically.

7. Example of HTML and CSS Integration

HTML File (*index.html*):

```
<html>
<head>
  <link rel="stylesheet" href="mystyle.css">
</head>
<body>
  <h1>Page Title</h1>
  <p>This is some content.</p>
</body>
</html>
```

CSS File (*mystyle.css*):

```
body {
  background-color: lightblue;
}

h1 {
  color: brown;
  font-size: 24px;
}
```

Result:

- The page background is light blue.
- The main heading is brown and larger in size.

✓ Summary:

- HTML creates the structure of the webpage.
- CSS is used to **format and design** the webpage.
- Using **external CSS** saves time, ensures consistency, and makes the website responsive.
-  CSS allows easy control over colors, fonts, layouts, and more.

Lesson 2 Questions □ **Model 1****A. True or False (8 Questions)**

1. HTML is used to structure web pages. ()
2. CSS is used to format and design web pages. ()
3. Without CSS, every page must be formatted separately. ()
4. CSS makes websites slower. ()
5. One CSS file can control many HTML pages. ()
6. CSS stands for Cascading Style Sheets. ()
7. Using external CSS saves time. ()
8. Internal CSS is written inside the <style> tag. ()

B. Complete the Sentence (7 Questions)

1. CSS is used to _____ web pages.
a) draw b) format c) delete d) cook
2. HTML creates the page _____.
a) color b) structure c) error d) problem
3. CSS stands for Cascading _____ Sheets.
a) Strong b) Style c) System d) Simple
4. One CSS file can control many _____ pages.
a) HTML b) book c) animal d) car
5. External CSS is linked with the _____ tag.
a) <link> b) <body> c) <div> d) <p>
6. Internal CSS is written inside the _____ tag.
a) <style> b) <head> c) <footer> d) <html>
7. CSS makes the website look more _____.
a) ugly b) boring c) beautiful d) broken

A. True or False (8 Questions)

1. CSS helps make websites look more attractive. ()
2. External CSS is the best choice for large websites. ()
3. Inline CSS is written inside HTML elements. ()
4. CSS cannot be used with HTML. ()
5. Changing the CSS file affects all linked pages. ()
6. Internal CSS is written in a separate file. ()
7. External CSS improves loading speed. ()
8. CSS can control fonts, colors, and layout. ()

B. Complete the Sentence (7 Questions)

1. Inline CSS is written inside _____ elements.
a) CSS b) HTML c) paper d) car
2. External CSS is the best option for _____ websites.
a) small b) large c) toy d) broken
3. Changing one CSS file updates _____ pages.
a) one b) two c) all linked d) none
4. CSS controls colors, fonts, and _____.
a) layout b) water c) people d) cars
5. Inline CSS is used for _____ changes.
a) big b) small c) dangerous d) cold
6. External CSS helps the website load _____.
a) slower b) faster c) heavier d) later
7. CSS works together with _____ to build websites.
a) paint b) book c) HTML d) TV

Unit 2 – Lesson 3: My Digital Project for My School Website

1. Project Goal

- In this lesson, students learn how to **design and build a simple website** for their school using:
 - **HTML** to structure the pages.
 - **CSS** to format and style them.
- The project includes two web pages:
 - A **School Information** page.
 - A **Student Information** page.

2. Preparing the Project Folder

■ Create a folder named Project and add the following files:

File Name	Type	Function
school.html	HTML	Stores the HTML code for the school page.
student.html	HTML	Stores the HTML code for the student page.
style.css	CSS	Stores the formatting code for both pages.

3. Example: HTML Code for the School Page

```
<html>
<head>
  <title>School Data</title>
  <link rel="stylesheet" href="style.css">
</head>
<body>
  <div class="container">
    <header>
      <h1>El Elm and El Eman School</h1>
    </header>
    <section>
      <h2>School Information</h2>
      <br><br>
      School Name: El Elm and El Eman <br><br>
      Address: Kafr Al Zayat Gharbia <br><br>
      Tel No: 01096169792 <br><br>
      Email: elelmeman@gmail.com
    </section>
```

```
<section>
  <h2>School Activities</h2>
  Playing Football and Basketball <br><br>
  Learn Programming <br><br>
</section>
```

```
<footer>
  <p>&copy; School Information 2025</p>
</footer>
```

```
</div>
```

```
</body>
```

```
</html>
```

Explanation of Code:

- <div class="container"> groups content and allows formatting.
- <header> holds the page title.
- <section> organizes content into separate blocks.
- <footer> shows copyright information.

4. Example: HTML Code for the Student Page

```
<html>
<head>
  <title>Student Data</title>
  <link rel="stylesheet" href="style.css">
</head>
<body>
  <div class="container">
    <header>
      <h1>Student Data</h1>
    </header>
    <section>
      <h2>Personal Information</h2>
      <br><br>
      Student Name: Haidy Esmail <br><br>
      Birthdate: 14/3/2014 <br><br>
      Stage: Prep 2 <br><br>
      Address: Kafr Al Zayat Gharbia
```

</section>

<section>

<h2>Contact Information</h2>

Tel Number: 01559997805

Email: haidyesmail33@gmail.com

</section>

<footer>

<p>&copy; Student Data 2026</p>

</footer>

</div>

</body>

</html>

 Key Elements:

- **Header:** Page title.
- **Section 1:** Student personal information.
- **Section 2:** Contact information.
- **Footer:** Page copyright.

5. CSS Code for Both Pages (style.css)

body {

text-align: center;

font-weight: bold;

}

.container {

width: 80%;

margin: auto;

background-color: lightcyan;

}

header {

padding: 10px;

color: white;

background-color: darkblue;

}




```

section {
  padding: 15px;
}

h2 {
  padding-bottom: 10px;
  color: blue;
  border-bottom: 5px solid blue;
}

footer {
  padding: 5px 0;
  color: white;
  background-color: black;
}

```

6. What the CSS Does

CSS Element	Effect
body	Centers the text and makes it bold.
.container	Controls page width and background color.
header	Adds padding and background color to the header.
section	Adds spacing around content.
h2	Styles subheadings with blue color and a bottom border.
footer	Styles the bottom area of the page with black background and white text.

✓ Summary:

- HTML is used to **structure** web pages.
- CSS is used to **style** and make pages more attractive.
- A project can include **multiple HTML pages** that share the same CSS file for a unified design.
- This is a practical step toward building a **real school website**.

Lesson 3 Questions 🍎 Model 1**A. True or False (8 Questions)**

1. HTML is used to structure web pages. ()
2. CSS is used to make the website more attractive. ()
3. The project includes two web pages: School and Student. ()
4. The project folder name is "Project." ()
5. CSS must be written inside the HTML file only. ()
6. The <header> tag is used for the page title. ()
7. The <section> tag helps organize page content. ()
8. The <footer> tag is used at the bottom of the page. ()

B. Complete the Sentence (7 Questions)

1. HTML is used to build the page _____.
a) color b) structure c) music d) smell
2. CSS is used to add page _____.
a) structure b) design c) text d) numbers
3. The folder name for the project is _____.
a) work b) school c) Project d) website
4. The project includes School and _____ pages.
a) home b) teacher c) Student d) contact
5. The <header> tag is for the page _____.
a) image b) title c) footer d) section
6. The <section> tag helps to _____ the content.
a) delete b) organize c) break d) hide
7. The <footer> tag is placed at the _____ of the page.
a) top b) bottom c) middle d) side

A. True or False (8 Questions)

1. CSS gives the website its style and colors. ()
2. HTML and CSS can be used together in a project. ()
3. The project contains only one web page. ()
4. The <header> tag is usually at the top of the page. ()
5. The <footer> tag is used for navigation links. ()
6. CSS makes the page more organized. ()
7. The file style.css controls the design of the pages. ()
8. The <section> tag divides the page into parts. ()

B. Complete the Sentence (7 Questions)

1. CSS adds _____ to the page.
a) style b) bread c) walls d) smell
2. HTML builds the website _____.
a) image b) structure c) bag d) text only
3. The file used to control style is _____.
a) index.html b) style.css c) header.txt d) readme.doc
4. The <header> tag is placed at the _____ of the page.
a) bottom b) side c) top d) middle
5. The <footer> tag usually includes _____.
a) copyright b) image c) title d) table
6. The <section> tag is used to _____ page content.
a) play b) divide c) close d) print
7. The Student page contains the student's _____.
a) book b) personal information c) pen d) classroom only

Unit 2 – Lesson 4: Creating Your Website Using Artificial Intelligence

1. Introduction

- In the previous lesson, you learned how to design and build a website using **HTML** and **CSS**.
- Traditional website creation requires writing code and spending time learning programming skills.
- But now, thanks to **Artificial Intelligence (AI)**, you can create a professional and beautiful website quickly and easily **without writing any code**.

AI tools can:

- Understand your simple commands.
- Suggest creative designs.
- Build complete websites in minutes.

2. Why Having a Website Is Important

-  A **personal platform** to express yourself, share your hobbies, and display your achievements.
-  A **communication tool** to connect with people who share your interests.
-  An **opportunity** to **develop future digital skills**.
-  A **professional way** to present your school projects online.

3. How AI Helps Build Websites

- Before AI tools existed, creating a website required knowledge of coding languages like HTML, CSS, and JavaScript.
- Now, AI can:
 - Turn your ideas into ready designs.
 - Save time and effort.
 - Offer modern and creative templates.



4. Examples of AI Website-Building Tools

Tool Name	Features
Wegic.ai	Easy to use, free plan for students, simple steps to create a website.
Jimdo	Mobile-friendly, modern design, no technical skills required.
Dolphin	

🖱️ *In this lesson, we use Wegic.ai as an example because it is simple and suitable for students.*

5. Planning Your Website

Before you start creating your site, think about:

- ✦ Type of website (personal – blog – hobby – school project).
- 🎨 Colors (choose 2–3 that match your personality).
- 📄 Pages you need (e.g., Home – About Us – Contact).

6. Steps to Create a Website Using Wegic.ai

- Go to <https://wegic.ai/app>.
- Create a free account.
- Click **“Build your site.”**
- Type a clear command describing your website.
 - Example: *“Create a simple and attractive website for my school reading club. Name it School Read Club.”*
- AI generates a website based on your description.

7. Choosing the Design and Colors

- You can ask AI to:
 - Use **modern or playful** designs.
 - Add specific colors.
 - Adjust fonts and styles.
- Example prompt: *“Make the design modern with blue and white as the main colors, suitable for 13-year-old students.”*



Popular Design Styles:

- Modern (simple and elegant)
- Playful (bright and colorful)
- Professional (calm and organized)
- Creative (unique and artistic)

8. Adding Essential Pages

Common website structure:

-  **Home:** Welcome and overview.
-  **About Us:** Information about you or your project.
-  **Blog or Activities:** For sharing updates.
-   **Gallery:** To display pictures.
-  **Contact:** Ways to reach you.

You can give AI a command like:

“Add a Home page, an About Us page, an Activities page, and a Contact Us page.”

9. Adding Content and Images

- You can ask AI to add texts or write your own.
 - Example: *“Write an About Us page for a reading club at my school.”*
- Add a photo gallery to make your site more engaging.
 - Example: *“Add a photo section showing the club’s activities.”*
- Types of galleries:
 - Grid Gallery
 - Slide Show

Masonry Gallery

Lightbox Gallery



10. Adding a Contact Form

- Important for visitors to communicate with you.
- Example prompt: *"Add a Contact Us page with a form and the club's email address."*
- You can also include:
 - Email address (with teacher's permission).
 - Social media links.
 - QR code for easy access.

⚠️ Important Safety Note:

Never share personal contact information online without permission from your parents or teacher.

11. Customizing Your Website

-  Edit text to make it more personal.
-  Change colors and fonts to match your style.
-  Replace sample images with your own (with teacher's approval).

Example prompt:

"Change the headline color to light green and the background to beige."

12. Tips for a Successful Website

- ☐ **Keep it Simple:** Don't use too many elements.
-  **Mobile Friendly:** Make sure it looks good on all devices.
-  **Privacy First:** Protect your personal data.
-  **Keep it Updated:** Add new content regularly.

13. Future Project Ideas

- A digital school magazine.
- An online platform to share classroom projects.
- An art gallery for students.
- A science blog for experiments and innovations.

✓ Summary:

- AI tools make creating websites easy and fast.
- You can design pages, choose colors, and add content with simple commands.
- A well-designed website reflects your ideas and skills.
- Remember to keep your site safe, simple, and regularly updated.

Lesson 4 Questions □ **Model 1****A. True or False (8 Questions)**

1. AI can help create a website without writing code. ()
2. Traditional website design always needs programming skills. ()
3. AI tools can suggest creative designs. ()
4. Wegic.ai is an example of an AI tool for building websites. ()
5. AI cannot add colors or styles to a website. ()
6. You should plan your website before building it. ()
7. A "Home" page is usually the main page of a website. ()
8. AI allows you to add pages like "About Us" and "Contact." ()

B. Complete the Sentence (7 Questions)

1. AI stands for _____ Intelligence.
a) Active b) Artificial c) Automatic d) Amazing
2. AI tools help create a website _____.
a) slowly b) easily c) badly d) late
3. Wegic.ai is an AI tool used to _____ websites.
a) break b) build c) hide d) erase
4. A Home page gives users a quick _____ of the site.
a) table b) view c) pen d) sound
5. You can add an "About Us" and _____ page to your website.
a) Contact b) Shoes c) Wall d) Box
6. AI can design pages with different _____.
a) colors b) animals c) pencils d) bags
7. You must plan your website's _____ before starting.
a) name b) color c) structure d) number

A. True or False (8 Questions)

1. AI can build professional websites quickly. ()
2. You must always write HTML code when using AI. ()
3. AI tools understand simple commands. ()
4. Wegic.ai is easy for students to use. ()
5. A Contact page lets visitors reach you. ()
6. Planning the website structure is not important. ()
7. AI can choose colors, fonts, and design styles. ()
8. You can add a gallery to your website using AI. ()

B. Complete the Sentence (7 Questions)

1. AI can build a website in a few _____.
a) hours b) minutes c) years d) days
2. Commands help AI understand what you want to _____.
a) eat b) build c) paint d) fix
3. A Contact page is used to let people _____ you.
a) cook b) find c) reach d) paint
4. Wegic.ai is an example of an AI _____.
a) bag b) tool c) book d) screen
5. A Gallery page shows _____ of activities.
a) names b) pictures c) tables d) pens
6. AI can help you choose the website's _____.
a) car b) design c) floor d) paper
7. AI makes building websites _____.
a) harder b) easier c) boring d) slower

Model 1 – Unit 1 (Lessons 1 & 2)**A. True or False (8 Questions)**

1. Smart systems can help reduce energy waste. ()
2. IoT means Internet of Tools. ()
3. Smart homes can adjust temperature automatically. ()
4. Advanced cyber threats can steal data. ()
5. Ransomware deletes files permanently. ()
6. DDoS attacks can make websites stop working. ()
7. Social engineering tricks people to give information. ()
8. Strong passwords help protect accounts. ()

B. Complete the Sentence (7 Questions)

1. Smart systems help to _____ energy.
a) waste b) reduce c) delete d) close
2. IoT stands for Internet of _____.
a) Tables b) Tools c) Things d) Toys
3. Smart transportation helps reduce _____.
a) pollution b) food c) bags d) chairs
4. Ransomware _____ files and demands payment.
a) copies b) locks c) prints d) eats
5. Phishing is used to steal _____.
a) clothes b) water c) information d) phones
6. DDoS attacks send too many _____ to a website.
a) requests b) toys c) people d) shoes
7. Social engineering targets _____.
a) people b) machines c) trees d) animals

Model 2 – Unit 1 (Lessons 3 & 4)**A. True or False (8 Questions)**

1. Big Data comes from many sources. ()
2. Social media does not generate data. ()
3. GPS and satellites are sources of data. ()
4. Big Data is always structured. ()
5. AI can use Big Data to learn. ()
6. Data cleaning removes errors. ()
7. AI can make predictions using data. ()
8. Big Data and AI help in decision-making. ()

B. Complete the Sentence (7 Questions)

1. Big Data is a _____ collection of information.
a) small b) large c) weak d) old
2. Social media is a source of _____.
a) toys b) water c) data d) cars
3. IoT devices like smartwatches _____ data.
a) break b) generate c) hide d) burn
4. Data _____ removes mistakes and duplicates.
a) walking b) cleaning c) talking d) painting
5. AI can find _____ patterns in data.
a) hidden b) bright c) loud d) open
6. Big Data and AI improve _____ making.
a) car b) bag c) decision d) table
7. Predictive analytics helps _____ future trends.
a) stop b) hide c) predict d) paint

 Model 3 – Unit 2 (Lessons 1 & 2)**A. True or False (8 Questions)**

1. UX focuses on user experience. ()
2. UI is only about how users feel. ()
3. Consistency is important in web design. ()
4. Easy navigation helps users. ()
5. CSS is used to format web pages. ()
6. External CSS is useful for large websites. ()
7. One CSS file can control many pages. ()
8. Inline CSS is written inside HTML elements. ()

B. Complete the Sentence (7 Questions)

1. UX stands for User _____.
a) Example b) Experience c) Extra d) Exit
2. UI focuses on how the site _____.
a) smells b) looks c) cooks d) plays
3. Easy _____ makes websites user-friendly.
a) navigation b) water c) light d) phone
4. CSS stands for Cascading _____ Sheets.
a) Strong b) Style c) Simple d) Solid
5. External CSS saves _____.
a) food b) time c) energy d) paper
6. Inline CSS is written inside _____ elements.
a) car b) HTML c) door d) pen
7. CSS makes the page look more _____.
a) ugly b) broken c) beautiful d) boring

Model 4 – Unit 2 (Lessons 3 & 4)**A. True or False (8 Questions)**

1. HTML builds the structure of a website. ()
2. CSS is used to make the website look attractive. ()
3. The project contains School and Student pages. ()
4. The <header> tag is for the page title. ()
5. AI tools can help build websites easily. ()
6. Wegic.ai is an AI tool for website creation. ()
7. AI can add pages like “About Us” and “Contact.” ()
8. Planning the website structure is important. ()

B. Complete the Sentence (7 Questions)

1. HTML builds the website _____.
a) music b) structure c) food d) color
2. CSS adds _____ to the page.
a) smell b) design c) books d) wheels
3. The folder name used in the project is _____.
a) site b) school c) Project d) home
4. Wegic.ai is an AI _____.
a) car b) tool c) fruit d) name
5. A “Contact” page helps people _____ you.
a) paint b) reach c) dance d) swim
6. AI can choose colors and _____ styles.
a) food b) design c) toys d) numbers
7. The <footer> tag is placed at the _____ of the page.
a) top b) bottom c) middle d) side

□ Comprehensive Model 1

A. True or False (8 Questions)

1. Smart systems can help reduce energy waste. ()
2. Ransomware is a type of advanced cyber threat. ()
3. Big Data comes from many different sources. ()
4. AI can analyze Big Data to make predictions. ()
5. UX focuses only on the colors of a website. ()
6. CSS is used to format and design web pages. ()
7. The <header> tag is used at the bottom of the page. ()
8. AI tools can create a website without writing code. ()

B. Complete the Sentence (7 Questions)

1. IoT stands for Internet of _____.
a) Tools b) Tables c) Things d) Toys
2. Ransomware _____ files and asks for money.
a) breaks b) locks c) cleans d) prints
3. Big Data is a _____ and complex collection of data.
a) small b) large c) random d) easy
4. AI can find _____ patterns in data.
a) hidden b) bright c) green d) wrong
5. CSS stands for Cascading _____ Sheets.
a) Strong b) Style c) Smart d) Simple
6. The <footer> tag is placed at the _____ of the page.
a) bottom b) top c) middle d) start
7. AI tools like Wegic.ai can build websites _____.
a) slowly b) easily c) painfully d) randomly

 Comprehensive Model 2**A. True or False (8 Questions)**

1. Smart homes can adjust temperature automatically. ()
2. DDoS attacks make websites faster. ()
3. IoT devices generate Big Data. ()
4. Data cleaning removes mistakes and errors. ()
5. UI focuses on how the website looks. ()
6. CSS can control fonts, colors, and layout. ()
7. The <section> tag is used to divide content. ()
8. Wegic.ai is an AI tool for building websites. ()

B. Complete the Sentence (7 Questions)

1. Smart transportation helps reduce _____.
a) pollution b) food c) pens d) tables
2. Phishing is used to steal _____.
a) money b) information c) shoes d) toys
3. Social media is a source of _____.
a) toys b) data c) water d) paper
4. Predictive analytics helps _____ future trends.
a) hide b) predict c) sleep d) walk
5. UX stands for User _____.
a) Unit b) Unique c) Useful d) Experience
6. One CSS file can control many _____ pages.
a) paper b) HTML c) toys d) trees
7. A Contact page helps people _____ you.
a) reach b) wash c) sleep d) drink

 Comprehensive Model 3**A. True or False (8 Questions)**

1. Smart systems help save energy and resources. ()
2. Phishing emails are always safe to open. ()
3. Social media is one of the sources of Big Data. ()
4. AI can discover hidden patterns in data. ()
5. UX design focuses on how the website looks. ()
6. CSS helps make websites more attractive. ()
7. The <header> tag is used at the top of a page. ()
8. AI can build websites in minutes. ()

B. Complete the Sentence (7 Questions)

1. Smart homes use _____ to control lights.
a) books b) AI c) animals d) cars
2. DDoS attacks make websites _____.
a) faster b) stop working c) bigger d) safer
3. IoT stands for Internet of _____.
a) Toys b) Things c) Tools d) Tables
4. Big Data comes from many _____.
a) colors b) sources c) trees d) walls
5. CSS is used to _____ web pages.
a) format b) paint c) break d) clean
6. UX focuses on how the user _____ the website.
a) feels b) eats c) breaks d) sings
7. Wegic.ai is an AI _____ for website creation.
a) toy b) tool c) game d) paper

Comprehensive Model 4

A. True or False (8 Questions)

1. Smart cities use technology to improve life quality. ()
2. Ransomware locks files and asks for money. ()
3. GPS is not a source of Big Data. ()
4. AI and Big Data help make better decisions. ()
5. UI focuses on the visual part of a website. ()
6. CSS can be external, internal, or inline. ()
7. The <footer> tag is usually at the bottom of the page. ()
8. Planning the website structure is important before using AI tools. ()

B. Complete the Sentence (7 Questions)

1. Smart systems help to _____ energy.
a) waste b) save c) lose d) hide
2. Ransomware is a type of advanced _____ threat.
a) paper b) water c) cyber d) toy
3. Big Data can be structured, unstructured, or _____.
a) clean b) semi-structured c) random d) hidden
4. AI uses Big Data to make smart _____.
a) toys b) books c) decisions d) pens
5. UI stands for User _____.
a) Image b) Information c) Interface d) Item
6. External CSS is useful for _____ websites.
a) small b) large c) broken d) old
7. AI can create websites without _____ code.
a) writing b) deleting c) painting d) reading